

Name: _____

1. Write the graphed number set in both **inequality** and **interval** notation.

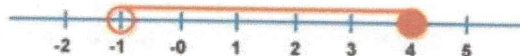
Inequality Notation:



Interval Notation:

2. Write the graphed number set in both **inequality** and **interval** notation.

Inequality Notation:



Interval Notation:

3. Graph the set of numbers $(-\infty, -1] \cup (2, 8]$ and write the set in inequality notation:



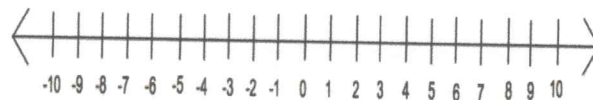
4. Solve the inequality $7 - 3x \geq 2x + 9$ and graph the solution set.



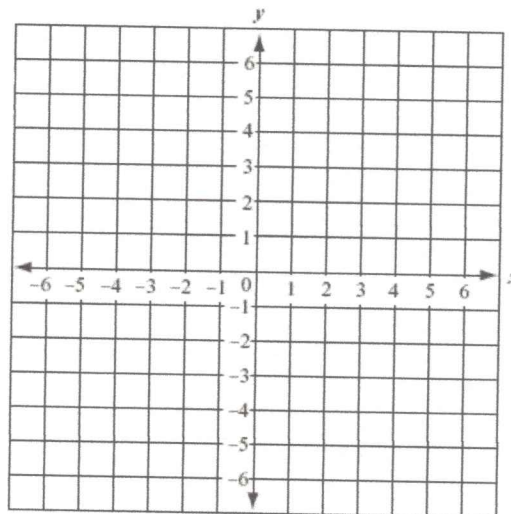
5. Solve the inequality $5 + 2x < -8$ or $4 - x < 1$ and graph the solution set.



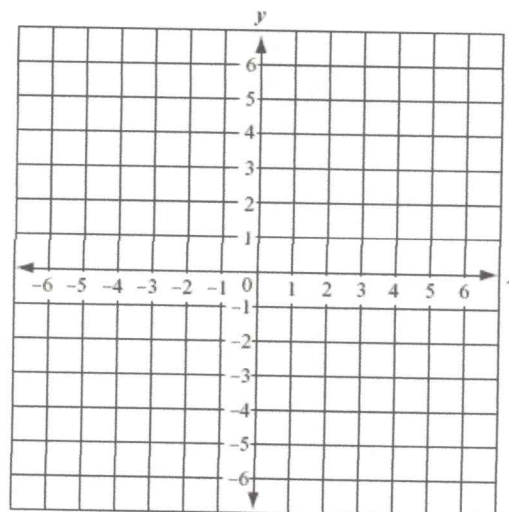
6. Solve the inequality $5 < \frac{1}{2}x + 8 \leq 10$ and graph the solution set.



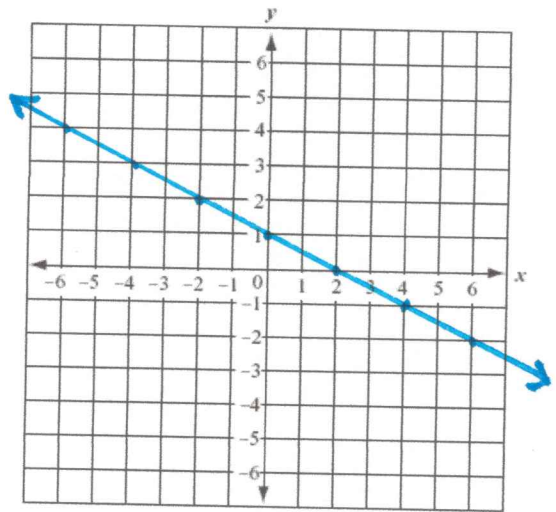
7. Graph the line with points $(-3, 6)$ & $(9, 2)$, and determine an equation of the line in point slope form.



8. Graph $2x - 4y = 8$ (plot several points and draw your line neatly)



9. Given the line shown, write an equation in slope-intercept form $y = mx + b$ first, then convert the equation to standard form $Ax + By = C$



10. Given a line containing the points $(-3, 5)$ and $(9, 1)$, find an equation of the line in point-slope form first, then convert the equation to slope-intercept form.
11. The two given equations represent lines. Are the lines parallel or Perpendicular or neither? Explain briefly why. $3x - 4y = -4$ & $-6x + 8y = -24$
12. Line A has equation $y - 7 = \frac{1}{5}(x + 3)$. Line B contains the point $(1, -4)$ and is perpendicular to line A. Determine an equation for line B in any form you choose.